

CLAIMS

What is claimed is:

1. A method of selectively displaying cartographic features on a video display of a navigation system, the method comprising the steps of:

- 5 a) determining an operational mode of the navigation system;
- b) selecting a desired cartographic entity for a cartographic feature based upon the operational mode; and
- c) displaying the desired cartographic entity on the video display.

10 2. The method of claim 1, wherein the navigation system includes first and second operational modes, and step b) includes selecting a less detailed desired cartographic entity for the first operational mode and selecting a more detailed desired cartographic entity than the less detailed desired cartographic entity for the second operational mode.

15 3. The method of claim 2, wherein the less detailed desired cartographic entity is no cartographic entity.

20 4. The method of claim 2, wherein the first operational mode comprises on-road mode and the second operational mode comprises off-road mode.

5. The method of claim 4, wherein a first cartographic entity is displayed when the navigation system is in off-road mode and said first cartographic entity is not displayed when the navigation system is in on-road mode.

6. The method of claim 4, wherein the navigation system includes a third operational mode comprising on-road guidance mode, and step b) includes selecting a least detailed desired cartographic entity that is one of the same as the less detailed desired cartographic entity and a less detailed version of the less detailed desired cartographic entity

5 than the less detailed desired cartographic entity for the on-road mode.

7. The method of claim 2, wherein the first operational mode is defined by a predetermined vehicle speed.

8. The method of claim 2, wherein the first operational mode comprises a panning mode.

9. The method of claim 2, wherein the less detailed desired cartographic entity is defined by a perimeter with cross-hatching disposed within the perimeter and the more detailed desired cartographic entity is defined by the perimeter with solid shading disposed within the perimeter.

10. The method of claim 1, wherein step b) further includes selecting the desired cartographic entity relative to a focal cartographic entity.

11. The method of claim 10, wherein the focal cartographic entity is a vehicle route having a first intensity, and step b) includes selecting a second intensity for the desired cartographic entity which is different than the first intensity.

12. The method of claim 11, wherein the operational mode comprises on-road guidance mode.

13. The method of claim 11, wherein the first and second intensities are selected
5 from a color palette having a plurality of colors.

14. The method of claim 13, wherein each of the plurality of colors are defined by blue, green, and red values with the first intensity having first blue, green, and red values and the second intensity having second blue, green, and red values that are a percentage of the
10 first blue, green, and red values, respectively.

15. The method of claim 14, wherein the first intensity is approximately twenty-five percent less than the second intensity wherein the first blue, green, and red values are approximately twenty-five percent less than the second blue, green, and red values,
15 respectively.

16. An apparatus for a navigation system for selectively displaying cartographic features, the apparatus comprising:

at least one position determining device for providing a vehicle location signal;

a database having a map with cartographic features and cartographic entities for

5 representing said cartographic features;

a processor interconnected to said at least one positioning device and said database for determining the location of the vehicle relative to said map;

a video display connected to said processor for displaying an area of said map;

a plurality of operational modes each displaying said map area, wherein said processor
10 determines an operational mode from said plurality of said operational modes and selects a desired cartographic entity for a cartographic feature based upon said operational mode, said processor displaying said desired cartographic entity on said video display.

17. The apparatus of claim 16, wherein said plurality of operational modes
includes first and second operational modes, and said processor selects a less detailed desired
cartographic entity for said first operational mode and selects a more detailed desired
cartographic entity than said less detailed desired cartographic entity for said second
operational mode.

20 18. The apparatus of claim 17, wherein said less detailed desired cartographic entity is no cartographic entity.

19. The apparatus of claim 17, wherein said first operational mode comprises on-road mode and said second operational mode comprises off-road mode.

20. The apparatus of claim 19, wherein a first cartographic entity is displayed when said apparatus is in said off-road mode and said first cartographic entity is not displayed when said apparatus is in said on-road mode.

5 21. The apparatus of claim 19, wherein said apparatus includes a third operational mode comprising on-road guidance mode, and said processor selects a least detailed desired cartographic entity that is one of the same as said less detailed desired cartographic entity and a less detailed version of said less detailed desired cartographic entity.

10 22. The apparatus of claim 17, wherein said first operational mode is defined by a predetermined vehicle speed.

23. The apparatus of claim 17, wherein said first operational mode comprises a panning mode.

15 24. The apparatus of claim 17, wherein said less detailed desired cartographic entity is defined by a perimeter with cross-hatching disposed within said perimeter and said more detailed desired cartographic entity is defined by said perimeter with solid shading disposed within said perimeter.

Sub 25. A method of displaying a road segment on a video display of a navigation system, the method comprising the steps of:

- 5 a) determining an operational mode of the navigation system;
- b) selecting a desired intensity for a desired cartographic entity relative to a focal cartographic entity based upon the operational mode; and
- c) displaying the desired cartographic entity on the video display at the desired intensity.

10 26. The method of claim 25, wherein the focal cartographic entity is a vehicle route having an intensity vehicle route and step b) includes selecting the desired intensity for the desired cartographic entity which is different than the vehicle route intensity.

15 27. The method of claim 26, wherein the operational mode comprises on-road guidance mode.

28. The method of claim 26, wherein the vehicle route intensity and desired intensity are selected from a color palette having a plurality of colors.

20 29. The method of claim 28, wherein each of the plurality of colors are defined by blue, green, and red values with the vehicle route intensity having first blue, green, and red values and the second desired intensity having second blue, green, and red values that are a percentage of the first blue, green, and red values, respectively.

30. The method of claim 29, wherein the desired intensity is approximately twenty-five percent less than the vehicle route intensity wherein the first blue, green, and red values are approximately twenty-five percent less than the second blue, green, and red values, respectively.

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